

AR87

JUN 19 1953



PARLIAMENT BUILDINGS
TORONTO, ONTARIO

ONTARIO SECURITIES COMMISSION

SPECIAL REPORT

INDORE GOLD MINES LIMITED - - SECURITY ISSUER

BY

W. ROY DUNBAR, P. ENG.

Mr. Dunbar's report which is released with the permission of the Honourable Dana Porter, Q.C., Attorney General, pursuant to section 25 of The Securities Act, follows an extensive examination of material records in conjunction with an exhaustive examination under oath of available persons who were considered chiefly responsible.

The Commission deeply appreciates Mr. Dunbar's work in the preparation of this comprehensive report and Messrs. Cameron and Cox who took part in the investigation leading up to its preparation have gained valuable experience as a result.

A company operating at far distant and thinly settled points, naturally presents special problems if the good faith of its management is questioned. Indore was selected for this special type of investigation when the Commission entertained misgivings relating to the good faith of those responsible and in view of the nature of the representations made regarding the merits of the property and the result of development which if they should prove to be false, would be most damaging from the public's point of view. Apart from the immediate results, the procedure followed in this instance should tend to discourage others operating under similar conditions who might be inclined to rely on the expectation that representations property-wise would never be challenged.

Shareholders who read this report should note that it deals only with Indore's uranium claims located in the Northwest Territories without reference to other properties and assets which the company may own.

A handwritten signature in dark ink, appearing to read "O. E. Lennox".

(O. E. LENNOX)
CHAIRMAN

TORONTO, JUNE 17th, 1953.

ONTARIO SECURITY COMMISSION

SECRET

INVESTIGATION REPORT - 1971

1. Introduction

The Commission was established by the Ontario Security Commission Act, 1970, to investigate and report on the activities of persons who are or may be engaged in activities that are contrary to the interests of the Province of Ontario.

The Commission was established to investigate and report on the activities of persons who are or may be engaged in activities that are contrary to the interests of the Province of Ontario.

The Commission was established to investigate and report on the activities of persons who are or may be engaged in activities that are contrary to the interests of the Province of Ontario.

The Commission was established to investigate and report on the activities of persons who are or may be engaged in activities that are contrary to the interests of the Province of Ontario.

The Commission was established to investigate and report on the activities of persons who are or may be engaged in activities that are contrary to the interests of the Province of Ontario.

The Commission was established to investigate and report on the activities of persons who are or may be engaged in activities that are contrary to the interests of the Province of Ontario.

Page 1

1971

1971

1971



PARLIAMENT BUILDINGS
TORONTO, ONTARIO

ONTARIO SECURITIES COMMISSION

INVESTIGATION PURSUANT TO SECTION 23 OF SECURITIES ACT

REPORT ON EXAMINATION

IN RE

INDORE GOLD MINES LIMITED

BY

W. ROY DUNBAR, P. ENG.

MAY 25, 1953.

PARLIAMENT BUILDINGS
TORONTO, ONTARIO



ONTARIO

ONTARIO SECURITIES COMMISSION
ONTARIO SECURITIES COMMISSION

INVESTIGATION REPORT BY SECTION 27 OF SECURITIES ACT

REPORT ON INVESTIGATION

IN RE

INDO GOLD MINES LIMITED

BY

W. ROY GUTHRIE, P. ENG.

Digitized by the Internet Archive
in 2025 with funding from
University of Alberta Library

APR 25 1953



ONTARIO SECURITIES COMMISSION

REPORT ON EXAMINATION IN RE INDORE GOLD MINES LIMITED

TABLE OF CONTENTS:

1. PURPOSE OF REPORT
2. AUTHORITY
3. PREPARATION
4. EXAMINATION PROCEDURE
5. SUMMARY OF EVIDENCE PROVIDED IN ACCORDANCE WITH MY LETTER OF APRIL 2, 1953.
6. EXAMINATION OF CERTAIN EXHIBITS
7. ESTIMATES OF AVAILABLE SUPPLY OF URANIUM ORE ON INDORE PROPERTIES.
8. A FORECAST AS TO THE RESULTS OF THE CONTEMPLATED PRODUCTION OPERATIONS AT INDORE.
9. CONCLUSIONS:
 - (a) Classification of representations of fact
 - Ore Statements
 - Production Statements
 - (b) Responsibility for statements
 - (c) Opinion as to legitimacy of the Indore Operations

APPENDIX:

Dunbar letter April 2, 1953
Copy of Ex. 1 " 15, "
Copy of Ex. 3 " 15, "
Copy of Ex. 9 " 15, "
Copy of Ex. 10 " 16, "
Copy of Ex. 11 " 16, "
Copy of Ex. 13 " 16, "
Copy of Ex. 14 " 16, "



ONTARIO SECURITIES COMMISSION

REPORT ON EXAMINATION

in re

INDORE GOLD MINES LIMITED

April 15 and 16, 1953

-
1. PURPOSE: This is a report on my examination of Indore Gold Mines Limited technical and administrative officials for substantiation of questionable representations of fact made public concerning the said company's mining properties so as:
 - (a) To determine whether such representations of fact were or are true, and if untrue to determine whether such representations were or are reasonable and honestly made.
 - (b) To ascertain and fix responsibility for such representations.
 - (c) To form an opinion as to the legitimacy of the Indore projects, considering both the shareholders and the public interest.
 2. AUTHORITY: By Order of the Attorney General for the Province of Ontario dated March 12, 1953.
 3. PREPARATION: Following a discussion of the problem with Mr. Lennox, Chairman, and W.W. Cameron, Counsel for the Ontario Securities Commission, I received, in due course, the following information and data?
 - (a) Letter from W.W. Cameron, Counsel for the Ontario Securities Commission, dated March 12, 1953, defining the issues, and enclosing a memorandum from Cameron to Cox dated July 16, 1952, and a copy of part of a memorandum from Cox to Cameron dated August 14, 1952.

A copy of Part III being a transcript dated November 19, 1952 of the attempt at substantiation and a copy of part of a letter from W.W. Cameron to the officers and directors of Indore dated September 10, 1952.

A file of exhibits numbered 1, 1A, 2, 3, 3A, 4, 5, 6, 7, 7A, 7B, 7C, 7D, 7E, 8, 9, 9A, 10, 11, 11A, 12, 13, 14, 15, 16, 19, 20 and 21.
 - (b) Indore Gold Mines Limited submitted information and data which I requested by letter of April 2 last. Copy of this letter is included in the appendix to this report. The written data and records and reports so received were filed as exhibits.
 4. EXAMINATION PROCEDURE: The information and data was called for and submitted in order as per my letter of April 2, excepting item #7 thereof was dealt with last.
 5. SUMMARY OF EVIDENCE PROVIDED as requested by letter of April 2:



ONTARIO SECURITIES COMMISSION

REPORT ON INVESTIGATION

IN RE

INDIAN GOLD MINES LIMITED

April 12 and 13, 1951

1. PURPOSE: This is a report on the examination of Indian Gold Mines Limited (hereinafter referred to as "the company") and its subsidiaries and affiliates for the purpose of ascertaining whether the company is in compliance with the provisions of the Securities Act, 1948, and the regulations thereunder.

(a) To determine whether the company is in compliance with the provisions of the Securities Act, 1948, and the regulations thereunder, and to determine whether the company is in compliance with the provisions of the Securities Act, 1948, and the regulations thereunder.

(b) To ascertain and the responsibility for each representation.

(c) To form an opinion as to the propriety of the company's financial statements, and to determine whether the company is in compliance with the provisions of the Securities Act, 1948, and the regulations thereunder.

2. AUTHORITY: By Order of the Attorney General for the Province of Ontario dated March 12, 1951.

3. PREPARATION: Following a discussion of the problem with Mr. [Name], Chairman, and Mr. [Name], Secretary, of the Ontario Securities Commission, I received, in due course, the following information and data:

(a) Letter from Mr. [Name], Chairman, of the Ontario Securities Commission, dated March 12, 1951, defining the scope and nature of the investigation, and enclosing a memorandum from the Ontario Securities Commission dated March 12, 1951, and a copy of a memorandum from the Ontario Securities Commission dated March 12, 1951.

A copy of the report of the Ontario Securities Commission dated March 12, 1951, and a copy of the report of the Ontario Securities Commission dated March 12, 1951, and a copy of the report of the Ontario Securities Commission dated March 12, 1951.

A list of exhibits numbered 1 to 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 and 31.

(b) Indian Gold Mines Limited submitted information and data which I requested by letter of April 2, 1951, and a copy of this letter is included in the appendix to this report. The information and data submitted by the company are set out in the appendix.

4. EXPLANATION: The information and data were set out in the appendix in order to set out the facts of the case, and to show that the company is in compliance with the provisions of the Securities Act, 1948, and the regulations thereunder.

5. CONCLUSION: Having as requested by letter of April 2,



ONTARIO SECURITIES COMMISSION

-2-

Para.

- (1) Organization Chart. See Appendix Ex. 1.
This chart shows that Anderson reported to P. Gliddon, President, Director and Field Manager of Indore Gold Mines Limited.

Para.

- (2) The agreement for services between Anderson and Indore showed that Anderson worked for Indore on fee basis. Duties designated were to render mining engineering services, presumably in a "functional" rather than a "line" status. Paragraph 2 of this Agreement states: The Engineer agrees to perform mining engineering services..... and to give the mining interests of the Company his best skill and attention.

Para.

- (3) Anderson's job included writing progress reports which he affirmed he wrote himself and signed. His post was designated Resident Engineer: He supervised personnel and ordered supplies. He had no authority to initiate programs of work: programs of work were discussed with and authorized by President (Field Manager) and directors. Anderson carried out their orders and covered activities on all Indore properties. His duties appear to have been administrative as well as technical. See Appendix Ex. 3.

Para.

- (4) Proper plans of surface and first level workings were submitted. The underground crosscutting and drifting was commenced in October, 1950, and 470' of drifting was completed in May or June of 1951.

Para.

- (5) Surface assay plan of Pitch 8 was submitted. On scale 1" - 100', it showed the assays of grab samples taken at intervals along approximately 600' length on east contact of diabase. No assays were shown along west contact except one at south end. U308 assays ranged up to 10% U308.
- 2 A detail assay plan of channel sampling done on radioactive areas showing in the drifts on first level was also submitted. The original assay report by Eldorado was submitted. The arithmetic average of all assays (166) was found to be .52% U308. The average width of samples was tentatively estimated to be .7 of a foot. The samples were cut along the length of the radioactive mineralization. The sampled sections were not continuous; most of samples were taken on roof of drifts and some on the walls. The samples were taken sometime before July 12, 1951. Assuming an average width of .7' for full 470' of drifting (which is not apparent) at average of .52% U308, then average over 2.5' width would approximate .14% U308. No records of d. d. core assays were submitted but the assay of core recovered from below about central point of adit drifting was affirmed to show 2" of massive pitchblende.



ONTARIO SECURITIES COMMISSION

-3-

Para.

- (6) Weights of bulk samples from first level were reported to be approximately 500 lbs. each. Bulk sample was obtained by taking 3 channel sample cuts with hammer and moil on each and every drift face, each across 30" and by taking handful of muck from each care of muck taken from each drift round. The set of samples so taken to represent each round were said to weight about 15 lbs. The assay statement reports the average of 8 cuts taken from each of the 3 bulk samples. Eldorado advises that these cuts were not assayed individually but as a composite sample.)

Average of 3 bulk samples was given as .25% U308. The aggregate weight of channel or moiled samples of each face would approximate 7.5 lbs. and would represent a $2\frac{1}{2}'$ width containing the uranium-bearing structure. The far samples being a handful of material from each of about 18 cars per round would then weigh in aggregate about 7 - 8 lbs. Ordinarily, the car samples should be representative of all material broken in the round; i.e. of the 5' width of drift compared to the $2\frac{1}{2}'$ width containing the uranium-bearing structure. The muck samples would have to be taken as the drifting was being done; i.e. between December 1950 and May or June, 1951.

The muck samples and detail moiled samples were forwarded to Eldorado assay office at same time. See Appendix Ex. #9.

The conditions under which the 2 sets of samples were taken must have been similar with variation to better conditions in favour of the detail moiled sampling.

Para.

- (7) Lists of mill equipment on Pitch 8 property as of September 4, 1951 and at present time and a list of mining equipment on Pitch 8 at present time was also submitted and appeared satisfactory. See Appendix Ex. 10.

Para.

- (8) A geological plan of Group 27-28 property was submitted. It showed a narrow vein structure extending for 1000' or so with strong radioactivity over a length of 150' and nothing to weak radioactivity over the remaining length. A number of trenches have been blasted across the vein over the 600' of length and of this 100' is described as high grade. A selected or picked bulk sample was taken from trench #3 of the 100' section and sent to Ottawa for testing. The vein here was said to be 4' wide so that ore expectation would be approximately 40 tons per vert. foot, and only a very small tonnage, possibly 800 tons, could conveniently be recovered by "open pit" mining. It apparently was indore's officials' intention to sink a shaft on this section of vein to follow the "ore" down.

No assay results of diamond drilling were submitted as apparently no important values had been obtained. See Exhibit 11 April 16, 1953.



ONTARIO SECURITIES COMMISSION

-4-

Para.

- (9) Reference was also made to Pitch 1 property where open pit mining was said to have been done, and plans were submitted.

Here several trenches, one 20' x 10', have been blasted out across a radioactive zone designated #10 but the zone containing pitch was narrow. Instead of open pit mining it was a prospecting trench to determine limits of vein. This work had been done before Anderson started working for Indore. The plan also showed that 3 diamond drill holes had been drilled under these trenches. A report by Anderson dated June 30/50 (Exhibit 14A) stated that the drill cores did not yield radioactivity and it was concluded that the zone did not continue to any great depth.

6. EXAMINATION OF CERTAIN EXHIBITS:

EXHIBIT 1A - Frank W. Anderson's letter of August 20, 1951 to Mr. Paul Gliddon, President of Indore.

Anderson said he wrote the letter himself and had signed the letter. I questioned Anderson on justification for assuming ore on both contacts over length of 800' along the dyke; that is, 250' each way beyond the drift faces. His argument was that (1st) the dyke actually was shown to extend that distance and more by surface mapping and (2nd) that the surface assay plan showed values along one contact, except at one point for a length of approximately 600', and (3rd) that since all drift to date had yielded ore he thought the ore would continue. The basis for indicated value derives from his bulk sample average for the 470' of drifting. Questioned on justification for statement that we can safely assume increased value could possibly amount to about 1/3 of indicated value, he asserted that the sampler frequently did not always sample the best places on the drift faces. He would not recognize that if the face channel samples were taken according to definite constant pattern - one cut across centre, one 1' from roof and lower cut 1' from floor - that a fair average over the drift length should be obtained. He did not appear to realize that since approximately half of bulk sample was obtained from car sampling representing all of the ground over 5' width, that any high grade not occurring in the contact or main zone would to some extent be represented in the .25% U308 average. He stated, however, that that was his opinion and he was entitled to his opinion.

The increased indicated value per ton according to this opinion would be approximately \$24.00, and infers a mining width of 5'.

EXHIBIT 2 - Roy T. Thompson letter September 6, 1951.

Questioned on basis for the statement that your Board of Directors feels that Indore shares are worth much more than \$1.15, Gliddon admitted that basis was the price at which the shares could be sold to the public and that they had no idea of what the value would be based on probable profits from production. Thompson in this letter infers a revenue of \$36.25 a ton from indicated Pitch 3 ore.

This is not a truthful statement since mine officials have been informed that tests on the ore had indicated an extraction of from 70% to 85%. On this information, the maximum expected revenue per ton would be approximately \$31.00.



ONTARIO SECURITIES COMMISSION

EXHIBIT 7C November 26, 1952

This formula by Anderson is an abridged version of part of Anderson's report appearing in the Indore prospectus. In the prospectus Anderson qualifies his estimates of extension by using words "possibly" and "assuming."

The evidence appears --

1. The dyke does extend for 1500'.
2. There is no sampling or assay values to justify the assumption that uranium values of .25% grade continue for this distance, i.e. 1500'. Three diamond drill holes on the extensions of the dyke did not indicate pitchblende in the cores but Anderson affirms that above average radioactivity was noted at contacts of the dyke.

In my opinion, there are indications of values over 600' length of dyke and that it may be reasonable to assume extension of values to 800', but there is no justification for describing or classifying as indicated ore the extension beyond that length to a 1500' length.

EXHIBIT 7D - General progress report by Paul Gliddon, President, dated February 27, 1952.

Mr. Gliddon was questioned on his statement in connection with Pitch 27-28 property "This will greatly enhance our ore reserve position since it will be possible to obtain a considerable tonnage from this property using open pit methods."

He had no idea how many tons could be mined by open pit mining methods, whether 5 tons or 5000 tons.

The described extent of the ore here is 100' long by 4' wide. They might with difficulty recover approximately 800 tons by open pit mining. The material would have to be shipped by barge approximately 6 miles to Pitch 8.

Contrary to Gliddon's statement in this letter, the report from the Department of Mines was said to have indicated that this ore was not amenable to the Pitch 8 plant. Gliddon may not have known that at that date. Indore officials under date of April 23 last advise that the above report was not received by them until July 4, 1952.

EXHIBIT 11 - Letter of Roy T. Thompson, dated May 19, 1952

Questioned on the statement "Indeed plans have already been made to get a second Indore uranium property into production close on the heels of the Pitch 8 where milling is imminent."

The evidence produced indicated that no plans had been made to put Pitch 27 - 28 into production and it is clear that there is insufficient ore indicated or probable to justify a production operation.

Also, the statement that Indore had achieved the finding of a commercially valuable deposit of uranium bearing ore - not only one but two, and perhaps more, was questioned.

The evidence showed that the Indore officials had no idea what it would cost to mine and mill their ore and did not know whether they could make a profit or not. On their own bulk sample data the mill head might



ONTARIO SECURITIES COMMISSION

-6-

average \$24.00 per ton for first 3 years. Recovery would be approximately 80% - \$19.00. And best estimate of cost in my opinion would be Consolidated Discovery Yellow Knife Gold Mines operating cost which is approximately \$23.00/ ton at 85 ton per day rate. So that the deposit does not appear to be commercially valuable. In any event, it appears that Thompson was only guessing. In my view, he had in mind a commercial production operation rather than the ambiguous meaning of a deposit of material valuable in commerce!

ANALYSIS OF SURFACE INFORMATION, PITCH 8, EXHIBITS 4 and 6 - April 15, 1953

Exhibit 6 shows 10 assays of grab samples taken at 7 places over a length of approximately 640'. All of these samples except one are represented to have been taken from the east contact of the dyke over a length of approximately 500'. The arithmetic average of the assays is 5.09% U308. Of the 640' length mentioned above, the east contact is shown to be exposed for 380'; i.e. approximately 60% of the length of the contact. The aggregate length of exposed contact on east side of dyke is shown to be approximately 160' of the 640' length. Only one grab sample is shown on this side.

Beyond this 640' of length there are only 2 outcrops of the dyke and they are to the north 40' and 180' north of the 640' length.

ANALYSIS OF THE DETAIL SAMPLING DONE ON ROOF AND WALLS OF DRIFTS ON FIRST LEVEL PITCH 8 PROPERTY, as per EXHIBITS 7 and 8 - April 15, 1953

South-east heading or drift:

Aggregate length of sampling	-	100'
Average width	" "	0.6'
Average assay	-	.55% U308

Continuous ore possibly mineable in this case along wall of drift.

Length	-	20' approx.
Av. width	-	0.9'
Av. grade	-	1.68% U308.

South-west heading or drift:

Aggregate length of sampling	-	130'
Average width	" "	0.5'
Average assay	-	0.66% U308.

Continuous ore possibly mineable indicated by roof sampling.

Length	-	28'
Width	-	0.58'
Av. grade	-	1.49% U308.

North-east heading or drift:

Aggregate length of sampling	-	75'
Average width	" "	0.53'
Average assay	-	0.51% U308

Continuous ore possibly mineable -

Length	-	8'
Width	-	0.4'
Average grade	-	0.41% U308



ONTARIO SECURITIES COMMISSION

-7-

Length - 5'
Width - 0.6'
Average grade - 0.66% U308.

Aggregate length of possibly mineable ore indicated by detailed sampling -

Length - 61'
Width - 0.66'
Average grade - 1.42% U308.

Average over minimum mining width of 2.5' - 0.37% U308.

Average over 5' mining width would be 0.185% U308.

Indicated possibly mineable ore potential assuming 5' mining width -
25 tons per foot of height or depth.

If there is a mineable height of 35' above the drift the indicated volume
of ore - 875 tons. Approx. averaging 0.185% U308.

(3.7 lbs. U308 per ton)

ORE ESTIMATE BASED ON W. L. McDONALD'S REPORT ON INDORE PITCH & PROPERTY
March 12, 1953, EXHIBIT 13, April 16, 1953

Aggregate length of ore sections as measured from McDonald's scale plan -

Length - 206'
Width - 1' - 1.5'

His estimated milling grade 0.4% - 0.5% U308..

On these data -

Tons per vert. foot - 25 for 470' of drifting, and
gross value of U308 content per vert. foot - \$1630.
with U308 @ \$7.25/lb.

On a mineable height of 35' above the drift the indicated volume of ore
on these data is 875 tons averaging approximately 9 lbs. of U308 per ton
of ore.

However, the most likely mineable longer sections amount to 130'
in aggregate - the other sections average about 5' in length.



ONTARIO SECURITIES COMMISSION

-8-

COMPARISON OF BULK SAMPLING AVERAGE WITH DETAIL SAMPLING

Aggregate length of all detail sampling in drifts

Average width - .305'
Average width - .53'
Average grade - .58% U308

(Average over 470' length - .37% U308
Average over 470' length by 2½' width - .078% U308.)

Equivalent grade over 5' width

$$- \frac{.58 \times .53}{5} - .06\% \text{ U308/ton}$$

- \$0.87 per ton with U308 price @ \$7.25/lb.

or \$1.74 per ton with U308 price @ \$7.25/lb.
over 2½' width.

Grade stated by Anderson over 470' length of drifting based on Bulk Sampling -

- .25% U308 over 30" (2½') width - \$36.25 /ton

or taking into consideration his opinion that "due to the fact that there are definite high grade zones we can safely assume that the increased value could possibly amount to about 1/3 of the indicated value", it would appear that by increasing the mining width to 5' his opinion infers that the average grade would be .165% U308/ton over length of 470'. The dollar value of this grade @ \$7.25 lb. U308 - \$23.92/ton.

The evidence indicates that the pitchblende occurs sporadically and the detail sampling confirms this distribution. The detail sampling further indicates that only a few short sections of ore could possibly be mineable, aggregate length of which - 61'.

The emphasis on bulk sample assay average suggests that the drifts would be mined or stoped, for their total lengths of 470' over 2½' width. It transpires from the evidence that the officials of Indore did not consider this feasible nor did they have intentions of mining in this way - they have intentions of mining selectively. McDonald recommends this - Exhibit 13. Therefore the detail sampling and not the bulk sampling results would be used to control and guide the proposed production or mining operation. Consequently, there appears to be no practical justification for the bulk sampling as reported.

7. ESTIMATES OF AVAILABLE SUPPLY OF URANIUM ORE ON INDORE PROPERTIES

Since the evidence derived during examination concerning assays - dimensions of occurrences on Pitch Ind and Pitch 27 and 28 groups - is somewhat incomplete, the following excerpt, being page 59 of Geological Survey of Canada publication entitled "Canadian Deposits of Uranium and Thorium 1952", is given to supplement the evidence so given.

Page 59, Canadian Deposits of Uranium & Thorium by Lang, 1952, is as follows:



ONTARIO SECURITIES COMMISSION

-9-

PITCH-IND GROUP. This group, consisting of the Pitch Nos. 1 to 6 and the Ind Nos. 1 to 3 claims, is at the south end of Hottah Lake, adjoining the Cormac property. It is owned by Indore Gold Mines Limited. The claims are crossed by part of the quartzite zone described under the Bingo property. Pitchblende has been found at three places, associated with hematite and quartz, in quartzite, and at the **contact** of quartzite with other rocks. These showings are described under the headings "8", "9", and "10" by Henderson (1949, p. 13), No. 10 being, apparently, the largest. Henderson states: "In summary, the best part of this (No. 10) showing is exposed in the two south-westerly trenches, where a zone of quartz stringers 4 to 14 inches wide carrying pitchblende is exposed over a length of 35 feet. This zone dies out to the southwest, where it passes into slaty argillite, and apparently also to the northeast, where it has not been picked up in the most northeasterly trench".

A bulk sample of 1,680 lbs., of material from this property was sent to the Mines Branch in 1950. It averaged 2.58 C, and a concentrate containing 8.86C, representing a recovery of 75.5 per cent, was obtained. The sample contained hematite, pitchblende, and torbernite. Three diamond drill-holes, totalling 136 feet, were put down without encountering radioactive material.

pitch 8 to 10 GROUP This group, owned by Indore Gold Mines Limited, is at the shore of Hottah Lake, 7 miles north of the south end of the lake. The claims are numbered Pitch 8 to 10 and 29 to 31. One of the claims is understood to include a radioactive occurrence found by Mr. S. Campbell in 1934. The claims are underlain mainly by granitic rocks, cut by ~~basalt~~ dykes. One of these dykes, about 25 feet wide, has been traced for about 600 feet. Hematite and pitchblende occur in places along both contacts, for widths up to 10 inches. This mineralization is exposed in several rock tranches, from which grab samples taken by the company have shown up to 10.92 C. The showings are exposed intermittently for a total length of about 600 feet.

Eight diamond drill-holes were put down along the zone in 1950, without recovering radioactive ore. Original plans to do thorough diamond drilling were abandoned because of the possibility of poor core recovery, and, instead, it was decided to explore the zone from an adit (Figure 4), although this would not be more than about 50 feet below surface. This was begun in October, 1950, and the company reported, in January 1951, that a total of 198 feet of underground work had been done. This consisted of 130 feet of crosscutting, and 68 feet of drifting along the dyke contact. The company reported as follows on the results of the drifting: "Lenses of pitchblende up to 3 inches in width were observed in places. A sample taken across 3 feet returned 2.30 C and a high-grade sample taken over 8 inches assayed 20.0 C. Further sampling of dyke material 3 feet from the contact zone assayed 0.70 C and an analysis of this material showed disseminated pitchblende. In the drift from 48 feet to 61 feet a seam of pitchblende was observed which averaged 2 inches in width".

PITCH 27 and 28 GROUP This group, at the northeast corner of Hottah Lake, is owned by Indore Gold Mines Limited. The Company reported that a system of quartz veins in quartz-feldspar porphyry had been traced for about 700 feet. Most of the veins are narrow, but one is said to be 4 feet wide. Sulphide minerals and cobalt bloom occur in places. Although no radioactive minerals have been reported, grab samples have shown 10.32 C, 4.95 C, and 4.88C.

Utilizing all the available evidence, I give the following estimates of probable ore:

PITCH 8 PROPERTY

My estimate of probable ore exposed by the 470' of drifting and occurring above first level -



ONTARIO SECURITIES COMMISSION

-10-

875 tons averaging .185% U308
having ~~gross~~ value : \$7.25 per lb.
of U308 at \$23500.

Estimate of gross value based on W.L. McDonald's Report amounts to \$57050.

Anderson's corresponding estimate of gross value - \$676667. (letter August 20, 1951.

PITCH 27-28 PROPERTY

Estimated recoverable probable ore supply -

800 tons averaging say .84 U308

A large "mill test" sample from # 3 trench averaged 5.29% U308; this test ~~sample~~ was selected and Anderson said it represented the average of an area 4' x 8'.

No detail assay information was submitted nor apparently available.

Ex. 9 - April 15, 1953 - states a composite sample from ore dump averaged C.34% U308.

PITCH IND PROPERTY

Estimated probable available ore supply -

180 tons averaging 0.8% U308.

The average grade is based on result of a mill test shipment which was admitted to be hand picked, and which averaged 2.58% U308.

Hence, my estimate of total available probable ore (ore sampled on one side) and available for mining - 1855 tons.

8. A FORECAST AS TO THE RESULTS OF THE CONTEMPLATED PRODUCTION OPERATIONS AT INDORE:- based on the available evidence.

The administrative and technical officials did not submit any data or estimates of costs for mining and treatment of their ore, but they appear to have realized that at best the production operation would be marginal (Transcript Page 74, Line 24). They had reports on probable recoveries of U308. Therefore, in order to give perspective as to production possibilities of these properties, I submit the following forecast only as reasonable expectations from the probable tonnage of ore presently available:

The average grades are estimated from the Indore data and I have filled in tentative cost estimates.

Hence the operating profit prospects appear as follows, based on the apparent intention of treating all ore at Pitch 8 Mill at rate of 25-50 tons/ore per day.

Costs

Pitch 8 ore	\$25/ton
Pitch 27-28	\$50/ton
Pitch Ind	\$60/ton



ONTARIO SECURITIES COMMISSION

-11-

Recovery Value

Pitch 8 ore	@ 80% Extraction	- \$21.40
Pitch 27-28	@ 80% "	- \$97.50
Pitch Ind	"	- \$93.00

Predicted Operating Profit & Loss

Pitch 8	875 x \$3.60 loss	- \$ 3,150.
Pitch 27-28	800 x \$8.00 profit	- \$38,000
Pitch Ind	180 x 33.00 profit	- <u>5,940.</u>

Probable Operating Profit - \$40,790

9. CONCLUSIONS:

(a) Classification of certain representations of fact -

- A. Statements made concerning volume, grade and gross value of ore.
- B. Statements made concerning production from Indore properties.

Mr. W.W. Cameron, Counsel, and Mr. N.W.H. Cox, Investigator for the Ontario Securities Commission, have listed some questions concerning these representations which they feel should be answered. I have endeavoured to answer these in the light of all available evidence, as follows:-

A.

Statements in Anderson's letter August 20, 1951 (Exhibit 1A). Which statements (if any) were false?

None of these statements can be said to be false - there is no doubt as to the assay value of these bulk samples; the important question is - what did these bulk samples represent?

Which, if any, must Anderson have then known to be false?

Unless the samples were salted by another party, Anderson should have known whether the bulk samples were representative of the lengths and widths sampled; because he had had considerable sampling experience.

Which ones would a competent and efficient Engineer have then known to be false?

An efficient and competent Engineer would have noticed the difference between the bulk sample averages and the average of the detailed moiled samples which were available at same time, and would have reported this discrepancy to his superior, Field Manager Gliddon.

EXHIBIT 2.

Was bulk sampling done under Anderson's supervision and control?

Yes.



ONTARIO SECURITIES COMMISSION

-12-

Was it properly done, or was it the product of incompetence and professional ignorance?

The plan for this sampling appears sound (Exhibit 9). There is some doubt as to its proper execution; and it is quite possible that the bulk samples may have been salted. For example, each individual sample should have been kept separate and assayed separately, or all the material accumulated from the sampling of each (5') round should have been kept separate and assayed separately.

Was it wilfully and criminally improper of Anderson to write the first paragraph of Exhibit 1A?

No. Unless he realized the samples were not representative of the lengths and widths sampled. But he should have reported the detail sampling results too. Also, if the sampling had been done as stated by Anderson, there was no justification for raising the value by a third.

Which statements, if any, in Exhibits 7B and 7C were false?

Exhibit 7B. The statement that "the indicated ore available from the adit level horizon..... contains uranium valued at approximately half a million dollars" on the evidence is probably not true. In any event, the ore tonnage and value has not been proved to be as represented.

Exhibit 7C. "Total indicated length containing values - 2 x 1500'" as stated is not true - at least there is not sufficient evidence to support the statement.

Of any false statements in Exhibits 7B and 7C, which ones, if any, must Anderson have then known to be false?

Anderson must have realized that there was not sufficient proof for the above statement in 7B, and the statement in 7C.

Which ones would a competent and efficient Engineer have then known to be false?

Both. They should have been stated as possibilities which had not yet been proved or substantiated.

EXHIBIT 7.

Was there any justification for the representation that, based on assays - Indore has an indicated value to the horizon set for the second level of \$4,350,000?

No.

Could an honest and reasonable person have reached this conclusion?

No.



ONTARIO SECURITIES COMMISSION

-13-

Was there any justification at that period (presumably around February, 1952) for the representations "diamond drilling has established uranium values in pitchblende so disclosed at 3% across a full mining width - - these values obtain in quite a stabilized manner over the entire 1500 feet of length of the dike - - it appears that we are now on the apex of an exceedingly substantial ore body"?

There is justification for statement that uranium values of 3% across 2½' mining width which is the width to which Indore plans to mine, but there is no justification for statement that these values occur uniformly over 1500' length, nor for the statement that "we are now on apex of an exceedingly large ore body".

EXHIBIT 7B.

Was there "ore stockpiled and immediately mineable sufficient to run the mill for 16 to 18 months?"

Yes, if they planned to mine over 5' width, but their intentions are to mine over 2½' or less, in which case the statement would not be true.

EXHIBIT 11.

Did one drill hole return a value of \$2600/ton?

Yes.

Was there justification for Indore's claim to having found two commercially valuable deposits of uranium-bearing ore?

No.

B.

Was there a complete 10-20 ton mill on Indore's Hottah Lake property as Exhibit 1 alleges?

Yes.

Was the only thing which stood "between Indore becoming the second uranium producer in Canada" the commencement of milling?

No.

If answer is "No" what was the true state of the facts as regards commercial operation? (1) Present? (2) As at September 4, 1951?

The prospects for deriving an operating profit from mining and milling uranium ore on Indore properties as described are very poor. The situation in this respect appears to have been much the same as of September 4, 1951 as at the present time. Thus, there appears to be very little chance of recovering the capital already put into this project.

EXHIBIT 8.

Had a complete mining and milling plant been purchased, delivered and paid for at that date?

Milling plant was installed on property as of September 4, 1951 (Exhibit 10). The list of mining equipment on property at present is given in Exhibit 16. It is fairly complete.



ONTARIO SECURITIES COMMISSION

-14-

The general effect sought appears to have been to make the Indore uranium ore potential and operation look very much larger than the evidence shows to be probable, and without due regard as to the financial results of any production operations.

9. (b) Responsibility:

The statement that the gross value of the ore is \$4,350,000. was made by Thompson and is based on an abridged version of Anderson's qualified statements in the prospectus, but nevertheless Anderson defended this estimate in the examination. Then Anderson (Transcript P. 98 Lines 24 and 25) gives his opinion that the Thompson statement is not correct; notwithstanding that there is very little difference in this sense between "indicated" and "revealed".

Thompson says that 5.29% is a fair average of Pitch 27 and 28 vein while Anderson in Exhibit 9 (April 15, 1953) gives .84% U3O8 as the average.

The real issue is the validity of the three bulk samples from drifts on Pitch 8, the assays of which and resultant deductions form the basis of the most important representations of fact.

The detail sampling and McDonald's report do not check with the bulk sample averages.

The question is raised - -

What is the purpose of the bulk samples as taken? since it is apparent from McDonald's report that the bulk sampling information as designed does not contribute information useful for the guidance and control of the contemplated mining operation?

It is clear that Gliddon and Anderson are responsible for the origin and representativeness or bias of the bulk samples, since they were in charge of the operations on the properties. And since proposed plans of work were discussed with Gliddon and carried out by Anderson, Gliddon knew what was going on; consequently, Gliddon being the Field and Senior Manager must assume the greater share of the responsibility for representations made concerning developments and operations on all Indore properties. Gliddon had the authority, and "wherever authority is exercised, responsibility arises. Responsibility cannot be delegated. The responsibility of the superior for the acts of his subordinate is absolute". (From Management lectures by L. Urwick.)

Furthermore, the fact that the President of the company was continuously or at least frequently on the company's properties indicates that he was there to see that the policies of the directors were being carried out.

The statement of R.T. Thompson in letter of November 5, 1951 to "Dear Friend" (Exhibit 15) that "To date this dyke has been extended to 1500' with continuous showings of high grade pitchblende" is not true according to the available information and evidence.



ONTARIO SECURITIES COMMISSION

-15-

9. (c) Opinion as to the legitimacy of the Indore uranium operations.

I believe the expenditure of a limited amount of money to explore these pitchblende showings was justified.

I do not believe Gliddon and Anderson are competent or capable of efficiently managing the Indore operations. If they were, complete, accurate and dependable assay records would be available by which the average grade and tonnages of ore could be estimated. As the matter stands now, no one can say with any assurance what the true average grades or dimensions of the various showings are. They have also shown the lack of ability or insight as to the necessity for proper planning of the operations and for determining whether expenditures on the mill and mining plant are justified, but this could be due to the policies of the Indore directors.

It appears to me that the tonnage of ore available or from extensions is too small to justify any hope of profitable production operations and the recovery of capital spent on this project, at present prices of uranium oxide.

"W. R. DUNBAR"

